

REMARKS

This response follows an office action of May 2, 2000, rejecting claims 3-15. This is a second action non-final rejection.

With respect to the drawing change, the applicant resubmits the Figure 4. The original figure had subject matter which was superfluous and to be deleted which apparently lead to the confusion. It is believed that Figure 4 is amply supported by the specification and contains no conflicting data. The Shore D hardness values for the outer layer 16 are found on page 6, lines 19-20. The hardness values of the inner layer 14 are found on page 6, lines 25-26. The thickness of the inner and outer layers is found on page 7, lines 5-11. Approval of this drawing change is respectfully requested.

The applicant notes with appreciation that the Examiner has removed the prior rejections under 35 U.S.C. § 112, second paragraph.

In this rejection, the Examiner has cited and applied new prior art in rejecting the claims as a whole. The prior rejections based on Yamagishi '563 as anticipatory or rendering the claims obvious has been removed. Likewise, the rejection predicated on Sullivan '087 in view Ihara '381 has also been removed.

The Examiner here cites Yamagishi '413 and combines it with Yamagishi '563. The rejection is respectfully traversed. In essence, the Examiner cites the Yamagishi '413 reference as teaching the subject matter dealing with distortions of the various layers together with their hardness values and respective thickness or gages, but the Examiner recognizes that the reference is silent with respect to the dimple construction. For that, the Examiner relies on Yamagishi '563. While it is true that '413 reference contains no disclosure as to the dimple construction, the golf balls clearly would have dimples otherwise the carry, for example, those values set forth

in Table 3 could not be achieved by a golf ball which was perfectly round and devoid of dimples. The expectation then is that the golf ball of Yamagishi, admittedly a two piece golf ball, would have dimples albeit constructed in a manner consistent with the prior art.

The fundamental deficiency however, is that Yamagishi is not even a multi-piece golf ball having the fundamental architecture which applicant defines, namely a golf ball having a solid core and a cover consisting of inner and outer layers. The '413 reference is clearly a two piece ball. While it is true that Figure 2 shows a three piece solid golf ball, the three pieces would be consistent with the definition as Yamagishi points out of a single layer cover. In Figure 2, the core consists of a inner layer and an outer layer, the outer layer having a Shore D hardness in the range of 20 to 70.

The alternate embodiment of Figure 1 is a solid core having a distortion of at least 3.5 mm under a load of 100 kg, that is, a single solid core. The cover, composed primarily of an ionomer resin has a Shore D hardness in the range of 50 to 60.

Aside from the fact that Yamagishi does not disclose any dimples, more importantly are two other defects with respect to Yamagishi '413. First, there is no criticality and thus no disclosure of the proportion of dimples V_R (%) and the value V_0 of the dimples. The reference is simply silent on that point.

More importantly, Yamagishi '413 does not disclose the product of a Shore D hardness of an outer layer of the core and the cover layer. This is a critical defect. Yamagishi '413 thus does not in any way disclose the relationship between the product of Shore D hardness of the two layers and as a result, the value of V_R of the dimples would not be expected or obvious given that fundamental precursor defect.

Consequently, even if the products in the range of 1,500-4,000 would be expected from the Shore D hardness of the two layers disclosed, the particular range of values of V_R corresponding to the product is simply an unobvious extrapolation of any of that information.

Thus, the two fold defect in Yamagishi is that it provides no data whatsoever concerning the product of Shore D hardness of the outer layer of the core and the cover layer even if that is defined as the multi-piece golf ball defined by the Examiner as pertinent, and there is no relationship between any such product and the value of V_R .

Yamagishi '563 presents an irreconcilable conflict to Yamagishi '413 in so far as the construction of the golf ball is concerned. While the Examiner relies only on dimple sizing, the Examiner takes an overly restrictive and improperly narrow view of Yamagishi '563. That reference does not satisfy the elements of the invention in so far as distortion of the solid core of a range of 2.8-6.5 mm under a load of 100 kg. Moreover, the reference does not disclose a particular proportion of V_R to a particular product of the Shore D hardness. Applicant provided a Table in the prior response showing that these examples do not correspond to applicant's invention. The Examiner admits such on the bottom of page 3 of the office action.

The Examiner's conclusion that it would be obvious to include the golf ball of Yamagishi '413 to have a product of Shore D hardness of the inner and outer layers thus flies directly in the face of the disclosure of the other reference. That reference, Yamagishi '563, is somewhat more pertinent in that it at least provides dimple data but clearly for use in a golf ball construction having a materially different type of core.

As such, it is believed that there is no prima facie obviousness in the two Yamagishi references. Even if combined in any meaningful manner, they do not teach a technique of taking full advantage of the spin property which is dependent on the product of Shore D hardness of the

inner and outer layers and improving the flight performance of the golf ball to divide the range of the product into sub-ranges and then form dimples which satisfy the requirements of the proportion of V_R and the value of V_0 associated with the sub-ranges. There is simply no recognition or suggestion of that fundamental understanding.

The applicant respectfully contends that the two Yamagishi references would not be logically combined. Rather, the present different golf ball designs using different parameters and there is no interchange of sub-components in a mix and match manner. For example, if the Examiner believes that the type II golf balls have a range of V_R of 0.996 and thus it would have been obvious to include in the golf ball of Yamagishi '413 a product of Shore D hardness of the inner and outer cover layers to be 1,500-3,000, the result would be rejected by the artisan. If this were taken as some type of suggestion, not found in either reference then the solid core of Yamagishi '413 having a distortion of 3.5-5.0 mm under a load of 100 kg would be combined with type II dimples. However, even with that combination the result would not satisfy requirement 1 of applicant's claims. Applicant has narrowed the limit to 0.93. Moreover, the distortion of Yamagishi '413 does not satisfy the claimed distortion of 2.8-3.0 mm in new independent claim 16. Table 4 provides the basis for that limit.

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As such, the applicant respectfully contends that the claims in this case are patentably distinguishable over the prior art. There is no inference or suggestion, let alone an affirmative teaching or direction to modify either reference in a manner which the Examiner opines to be obvious. It is therefore respectfully contended that upon reexamination and reconsideration of this application, the claims should now be allowed. Should the Examiner have any questions, he is respectfully requested to contact the undersigned attorney of record at the local exchange below.

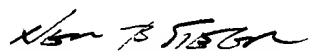
AMENDMENT

U.S. Appln. No. 09/129,883

Applicant hereby petitions for any extension of time which may be required to maintain the pendency of this case, and any required fee, except for the Issue Fee, for such extension is to be charged to Deposit Account No. 19-4880.

Respectfully submitted,

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